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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,007	10/29/2003	Ming-Fang Wang	TS01-808B	7109
7590	12/03/2004		EXAMINER	
George O. Saile 28 Davis Avenue Poughkeepsie, NY 12603			PRENTY, MARK V	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,007

Applicant(s)

WANG ET AL.

Examiner

MARK V PRENTY

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-41 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 30-34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date January 29, 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

This Office Action is in response to the papers filed on October 29, 2003.

The specification's reference to parent application Serial No. 10/146,287 (see the preliminary amendment filed on October 29, 2003) should be amended/updated to reflect that application's patented status.

Independent claim 30 is objected to for incorrectly reciting that the P and N well regions are located in the top portions of the first and second regions, respectively (see lines 5-7). The P and N well regions are formed in the top portions of the second and first regions, respectively (because the PMOS and NMOS transistors are formed in N and P well regions, respectively). Correction is required.

Independent claim 30 is objected to for incorrectly reciting that the P and N type source/drain regions are located in top portions of the recessed P and N well regions, respectively (see lines 16-19). The P and N type source/drain regions are located in the top portions of the recessed N and P well regions, respectively (because the PMOS and NMOS transistors are formed in N and P well regions, respectively). Correction is required.

Independent claim 30 is objected to for incorrectly reciting that the vertical P and N type silicon spacers are located on the sides of the non-recessed P and N well portions, respectively (see lines 27-31). The vertical P and N type silicon spacers are located on the sides of the non-recessed N and P well portions, respectively (see Fig. 12 and note that the vertical P and N type silicon spacers 55 and 58 are located on the sides of the non-recessed N and P well portions 6 and 5, respectively). Correction is required.

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Independent claim 30 is objected to because the second occurrences of "a first metal oxide gate insulator layer" and "a second metal oxide gate insulator layer" (lines 29 and 32, respectively) should read "the first metal oxide gate insulator layer" and "the second metal oxide gate insulator layer," respectively. Correction is required.

Claims 31-34 depend on independent claim 30 and are therefore similarly objected to.

Claims 35-41 are allowable over the prior art of record.

The prior art of record does not disclose or suggest the allowable MOS devices taken as a whole.

Wang et al. (United States Patent 6,656,764) and Wang et al. (United States Patent Application Publication US 2004/0087075) are related to this application.

This application is apparently in condition for allowance except for the above formal matters.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.

Mark Prenty
Mark V. Prenty
Primary Examiner